

## ON SOME ARIZONA ACRIDIIDÆ.

BY A. N. CAUDELL, WASHINGTON, D. C.

The following species of Acridiidae were recently purchased by the writer from the collector, Dr. R. E. Kunze, of Phoenix, Arizona. There are thirty-two specimens, representing eleven species, one of which is apparently undescribed, representing a new genus. Several of the species are, for various reasons, quite interesting, and all are herein listed. They are as follows:

1.—HIPPISCUS LEPROSUS, *Sauss.*

*Xanthippus leprosus*, Sauss. Prodr. Oedip., 92 (1884).

*Hippiscus leprosus*, Scudd. Psyche, VI., 334 (1892).

One female; Pinal Mts., Gila Co.; July 24, 1900.

This species was determined by Mr. J. A. G. Rehn, of Philadelphia.

2.—TRIMEROTROPIS VINCULATA, *Scudd.*

*Trimerotropis vinculata*, Scudd. Proc. Bost. Soc. Nat. Hist., XVIII., 270 (1876).

*Trimerotropis cincta*, Sauss. Prodr. Oedip., 171 (1884).

One male, two females; Pinal Mts., Gila Co.; July 12-18, 1900.

One of the females has the posterior tibiæ very slightly tinged with red.

## ARÆOPTERYX, nov. gen.

Head moderately prominent, nearly as wide as the metanotum and distinctly elevated above the pronotum. Antennæ filiform. Eyes subglobular, prominent, quite remote from each other, the space between them three times as broad as the extreme width of the basal segment of the antennæ. Fastigium feebly sulcate, with well-elevated margins, which terminate between the eyes. A moderately distinct median carina extends from the middle of the fastigium to the anterior margin, where it meets with the lateral carinæ, which converge at that point. Lateral foveolæ large, shallow and subtriangular in shape. The frontal costa averages about one-third the width of the interocular space, is sulcate throughout, has moderately-elevated margins and gradually narrows in the upper half to just before reaching the vertex, where it suddenly broadens and then immediately narrows again as it meets the fastigium. Lateral carinæ of the face about as prominent as the sides of the frontal costa and subparallel with them. Thorax transversely wrinkled on the slightly tectate pronotum and longitudinally rugose on the flattened disc of the metanotum. The principal sulcus cuts the thorax before the middle,

making the metanotum nearly a third longer than the pronotum. Median carina distinct but faint on the metanotum, on the pronotum visible only as longitudinal rugosities. Lateral carinae present only on the metanotum, and there very blunt, scarcely more than rounded shoulders. Thorax obtusely angled behind, in front truncate, but considerably produced in the middle. Lateral lobes subperpendicular, subangulate at the posterior angle. Interspace between both meso- and metathoracic lobes very strongly transverse. Tegmina and wings very long and slender, especially the former, which is nine times as long as the middle breadth. Humeral shoulder slight. Intercalary vein moderately strong, transversing nearly the middle of its area. Posterior femora moderately slender, the dorsal carina considerably elevated.

This genus has a general resemblance to *Trimerotropis*, *Conozoa*, *Psinidia* and *Anconia*, but differs in some particulars from all of them. It is probably the most nearly allied to *Anconia*, by reason of the slight development of the median carina on the pronotum, but is readily separated from that monotypical genus by the form of the frontal costa, the rugose metanotum and the more elongate elytra.

3.—*ARAEOPTERYX PENELOPE*, NOV. SP.

One female; Prescott; September 29, 1900.

Head of a uniform reddish brown colour with a number of somewhat minute fuscous spots on the facial carinae and the margins of the fastigium and frontal costa. Eyes quite prominent, almost globular, not so long as the infraocular portion of the genae and concolorous with the head. Antennae black, except the first and second segments, which are light. Thorax reddish brown, with the prosternum pallid. The sides with an oblong black mark extending diagonally across the middle, directed upwards and backwards and terminating before it reaches the posterior border of the metathoracic lobe. This is very probably a variable character, as it differs slightly on the two sides of the present specimen. Elytra more than twice as long as the posterior femora, very slender, gently inclined backwards distally and membranous over most of the apical half. Ground colour a shade lighter than that of the thorax and somewhat irregularly maculate throughout with fuscous, the infuscation being most conspicuous on the humeral angle and an oblong space at the end of the basal half of the costal margin, where it is quite dense. Wings considerably more than twice as long as the greatest width, base reddish pink in colour, beyond hyaline with infuscation along some of the veins

and very slightly infumate on the lower half next the coloured base. There is a long black stigma and an ill-defined tænia extending nearly to the base. Abdomen a little lighter in colour than the rest of the body. Anterior and middle tibiæ twice banded with fuscous and with the extreme tip black, armed below towards the apex with a few sharp black spines. Fore and middle tarsi variegated above, the basal segment pallid with the proximal end black, the second segment wholly black and the terminal segment entirely pallid with the claws tipped with black. Posterior femora slightly hoary on the outer face, very inconspicuously banded on the apical third with fuscous. Inner face black with light crossbars on the apical half, where the fuscous becomes eliminated. Genicular arcs slightly marked with fuscous. Posterior tibiæ and tarsi yellowish, the former preapically infuscated below and armed above with moderately stout spines, eight or nine in the outer series. Calcaria and spines black on the terminal half.

Length of body, 25 mm.; tegmina, 27 mm.; wing, 24 mm.; posterior femora, 12.5 mm. Width of elytra at middle point, 3 mm.; of wing at broadest part, 11.5 mm.

Type No. 5717, U. S. N. M.

Dedicated to my wife, in recognition of her interest and aid in my work.

#### 4.—ANCONIA INTEGRÆ, Scudd.

*Anconia integra*, Scudd. Ann. Rept. Chief Eng., 1876, 515 (1876).

Two males, five females; Phœnix; April 12—September 29, 1900.

This variable species was described from a single pair collected by Dr. O. Loew in the Mojave Desert, Lower California. Since then it has been reported from Death Valley, California.

The colour of this species varies from an almost uniform greenish yellow to very conspicuously spotted with fuscous on the head, thorax and elytra. The posterior femora are usually distinctly bifasciate above with black. The thorax is sometimes very conspicuously varied above by four cream-coloured marks: two, almost approximate, on the anterior part of the pronotum, and two, divergent and widely separated, on the lateral borders of the metanotum. These markings fade somewhat in drying. The lateral lobes of such marked specimens are pallid along the lower borders and furnished near the middle, in front, with an oblong, similarly coloured mark.

5.—SCHISTOCERCA SHOSHONE, *Thom.*

*Acridium shoshone*, Thom. Proc. Acad. Nat. Sc. Philad., 1873, 295 (1873).  
*Schistocerca shoshone*, Scudd. Proc. Amer. Acad. Arts Sc., XXXIV., 469  
 (1899).

Two males; Phoenix, October 8, 1900, and Pinal Mts., Gila Co.,  
 July 24, 1900.

6.—SCHISTOCERCA VAGA, *Scudd.*

*Acridium vagum*, Scudd. Proc. Bost. Soc. Nat. Hist., XVIII., 269 (1876).

One female; Prescott; without date.

7.—HESPEROTETTIX FESTIVUS, *Scudd.*

*Hesperotettix festivus*, Scudd. Rev. Mel., 60, pl. IV., f. 10 (1897).

Three males, six females; Phoenix; September 29—October 22, 1900.

This species has hitherto been reported only from California and  
 Utah. The specimens from Arizona have distinct red pregenicular  
 annulations on the posterior femora, and there are no blackish genicular  
 crescents, as mentioned in Scudder's description. Mr. Rehn thought they  
 might be an undescribed species, but they too nearly agree with the types  
 of *H. festivus* in the collection of the National Museum to be considered  
 different.

8.—MELANOPLUS DEVASTATOR?, *Scudd.*

*Melanoplus devastator*, Scudd. (pars.) Proc. Bost. Soc. Nat. Hist., XIX.,  
 285-8 (1878).

*Melanoplus devastator*, Scudd. Rev. Mel., 196, pl. XIII., figs. 3-7 (1897).

One female; Phoenix; October, 4 1900.

A single female specimen is referred with some doubt to the above  
 species. It seems to belong near the variety *typicalis*.

9.—MELANOPLUS HERBACEUS, *Brun.*

*Melanoplus herbaceus*, Brun. Bull. Div. Ent. U. S. Dep. Agric., No. 28,  
 25-6, f. 13 (1893).

*Melanoplus herbaceus*, Scudd. Rev. Mel., 153, pl. X., f. 10 (1897).

One female; Phoenix; October 9, 1900.

10.—MELANOPLUS RILEYANUS, *Scudd.*

*Melanoplus Rileyanus*, Scudd. Proc. Amer. Phil. Soc., XXXVI., 7, 32  
 (1897).

*Melanoplus Rileyanus*, Scudd. Rev. Mel., 151, pl. X., f. 9 (1897).

One female; Phoenix; September 30, 1900.

## . II.—MELANOPLUS YARROWI, Thom.

*Caloptenus yarrowi*, Thom. Rep. Geol. Geog. Expl. 100th Mer., V., 894, pl. XLV., f. 5 (1875).

*Melanoplus yarrowi*, Scudd. Rev. Mel., 369, pl. XXV., f. 2 (1897).

Two males, three females ; Phœnix ; October 2-10, 1900.

One of the females is very large, the measurements being as follows : Length of body, 35 mm.; tegmina, 26 mm.; posterior femora, 19 mm.

This species was described by Thomas from a single female collected in one of our Western States. The type was afterwards lost, but Scudder has re-identified the species from one male and one female from Grand Junction, Mesa County, Colorado. Thomas's specimen was probably from Arizona, though no definite locality was given at the time.

LECANIUM WEBSTERI, CKLL. AND KING, N. SP., WITH  
NOTES ON ALLIED FORMS.

BY GEO. B. KING, LAWRENCE, MASS.

IN CANADIAN ENTOMOLOGIST, 1895, p. 255, Prof. Cockerell gave some notes and briefly described a species of *Lecanium*, found by Prof. Webster and others, as *L. ribis*, Fitch. Later, in April, 1899, in "The Industrialist," p. 234-5, he again describes it and gives measurements of the antennæ and legs, and states that Mr. Pergande has some doubt about the identification. In November, 1900, Prof. Cockerell sent me two lots of *Lecanium*, collected by Prof. W. D. Hunter at Ames, Iowa. These I determined as *L. ribis* (based on Prof. Cockerell's notes), and sent a statement of my determination to him. Very soon I received a reply, in which he cited Fitch's description of *L. ribis*, and stated that under the circumstances the species which he called *L. ribis* apparently must be something else, and suggested for it the name *Lecanium Websteri*, based on the species from Ohio, described in "The Industrialist," April, 1899, p. 235. On receipt of this letter, I wrote to Dr. Howard, requesting him, if possible, to let me have some of Fitch's *L. ribis*. His reply was as follows: "Mr. Pergande says that he is unable to decide which of our Eastern species is identical